

Electromagnetic Identification label for Anti-Counterfeiting, Authentication, and Tamper Protection

Abstract of Disclosure

A radio frequency identification label is comprised of a tag circuit 310 electrically coupled to a defined marker region 330 such that the information generated by the tag circuit is dependent on the electronic properties of said marker region 330. The ID information conveyed to an external tag reader is thus a combination of fixed data intrinsic to the tag circuit 310 plus a portion of data that is dependent on the electronic properties of the marker region. The marker region 330 can be comprised of various materials with complex structure, such as woven cloth or printed electrically conductive inks, such that the ID code transmitted by the label is thus more difficult to reproduce or to counterfeit. In addition, the marker region 330 can also be arranged to have electrical coupling to the object onto which the label is affixed, thus creating an electronic ID code that is also dependent on the electronic properties of the tagged object itself.